



Figure 3 is an elevation of a flash diversion grenade made in accordance with a third embodiment of the present invention.

Figure 4 is an elevation of an aerosol-sonic and flash grenade made in accordance with a  
5 further embodiment of the present invention.

### **Best Mode and Other Embodiments of the Invention**

As shown in Fig. 1, a diversion grenade 100 comprises a transparent body 102 that  
10 contains one or more independent charges of a flash material 104. The flash material may be strands of magnesium or chemically impregnated fibres or the like which produce a high intensity flash of short duration. Each charge of flash material 104 is activated by an electrical initiating element 106 carried on body, for example within a compartment 108. The initiating element(s) 106 may be triggered by, for example, the release of a spring  
15 loaded lever 110 which may be temporarily secured by a safety pin 112.

In some embodiments the initiating element 106 comprises a source of power such as batteries 114 which supply an activation current to the flash material 104, for example through electrodes 118. A delay mechanism 116 prevents the current from reaching the  
20 flash material 104 until a variable or pre-established interval of time has passed. If variable, the delay interval can be set from controls 120 external to the body. A capacitive storage device can be used as a delay mechanism.

In optional embodiments, the grenade carries a tracer light 122 that may be selectively  
25 activated by the user. The tracer light 122 emits a second source of light of lower intensity, such as may be emitted by an incandescent or LED light. The tracer light serves the purpose of attracting the attention of the personnel for whom the diversion grenade is intended. It attracts their attention to better insure that they are looking at the grenade 100 when the flash material 104 is activated. The tracer light ~~104~~ 122 may also provide an  
30 indication of the path of the grenade, for the benefit of the grenade's user. The tracer may be activated immediately upon release of the lever 110 or it may be delayed briefly so as

to not give away the position of the user or thrower. If the delay of the tracer light ~~104~~ 122 is variable or if its operation is optional at the choice of the user, a control circuit 126 within the compartment 108 may be used in conjunction with a switch or control knob 124 external to the body. The control circuit 126 is adapted to take all user inputs and  
5 combine them into a sequence of control signals that are required to produce the effect or effects desired by the user. The one or more tracer lights 122 may be located within the transparent body or external to it, or both. The control circuit may also provide pulsed current to the tracer light so as to achieve a strobe effect that is known to attract more attention than an uninterrupted light source.

10 In preferred embodiments the body is fabricated from a cylindrical transparent or translucent polymer that is thick enough to withstand the energy emitted by the flash material without fragmenting, rupturing, dispel fragments or allowing hot material or gas to escape from the body. In preferred embodiments the activation of the flash material  
15 results in little or no noise, particularly when compared to a conventional diversion or distraction grenade.

In another embodiment, and as shown in Figures 2 and 3, the grenade 200, 300 embodies a combination of a brilliant flash and noise. The noise is of a high-pitched noise at a  
20 frequency that is disturbing or distracting to the person(s) it was designed to affect. As shown in Figure 2, the noise (or sound) is emitted via a speaker 201 built within the grenade. The grenade also employs one or more sub-control units comprising optional in-built noise generator circuit, power supply and amplifier (as required) 202 to power the one or more speakers, horns or other sound emitters 201. The sub-controls 202 may be  
25 activated in unison or otherwise by the control circuit 126. Where two or more emitters are used, they may be provided at different frequencies, preferably closely spaced frequencies for maximum distraction effect. The noise or sound need last for only several seconds, enough time to provide a debilitating, distracting affect. An external switch 203 gives the ability to select noise or no noise prior to deploying the grenade. When  
30 employing both noise and flash, the tracer light 122 is preferably initiated first to attract the attention of the person(s) it was designed to be employed against, and then the flash